Winter 2008

Environmental Standards Update

Ballast Water Activities by the International Maritime Organization (IMO)

By Richard Everett, Ph.D., USCG

Assembly Resolution on Application of the International Ballast Water Management Convention

Since adoption of the *International Convention for Control and Management of Ships' Ballast Water and Sediment* in 2004, there has been growing concern by some member countries and industry organizations about the feasibility of maintaining the first application date of the D-2 standard. Under Regulation B-3.3, the first ships required to comply with the ballast water discharge standard expressed in Regulation D-2 are those constructed in 2009 with ballast water capacities less than 5,000 m^3.

Despite a conclusion by the 56th meeting of the Marine Environment Protection Committee (MEPC 56) that technology would likely be available in time for ships built in 2009 to meet the requirement, ship owners and major flag nations have continued to point to the lack of type approved systems as cause for concern. In response, at its 25th meeting in November 2007, the IMO Assembly adopted a resolution regarding a deferral of enforcement for the ships addressed by Regulation B-3.3.

The operative part of the resolution recommends that States ratifying or otherwise agreeing to become a party to the Convention declare their intention to apply the Convention such that ships subject to Regulation B-3.3 constructed in 2009 will not be required to comply with Regulation D-2 until their second annual survey, but no later than December 31, 2011.

The Assembly is the highest governing body of the IMO. It consists of all Member States and it meets at least once every two years in regular sessions. The Assembly is responsible for approving the work program, voting the budget, and determining the financial arrangements of the Organization.

Work on Ballast Water Management to Continue at Upcoming IMO Meetings

The 12th session of the IMO Bulk Liquid and Gas Subcommittee (BLG) will be held from February 4 - 8 in London, UK. An agenda item of particular interest is "Development of Guidelines for Uniform Implementation of the 2004 BWM Convention", for which a Ballast Water Working Group will be convened.

Vessel discharges ballast. (Photo courtesy of the Smithsonian Environmental Research Center)

Significant progress has been made on finalizing the Guidelines that support the Convention. Of the fifteen sets of guidelines identified by the Organization as being needed for implementation of the Convention, fourteen have been adopted by the MEPC.

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The remaining implementing document, *Guidelines for Ballast Water Sampling (G2)*, will be a primary topic of discussion during BLG 12. Significant differences of opinion exists among the participating members regarding the basic purpose of the G2 guideline. The sampling guidelines are called for in Article 9 of the Convention, which provides for the inspection of ships by parties to the Convention for the purpose of determining compliance.

Under terms of Article 9, such inspections are limited to:

- verifying there is a valid certificate on board;
- inspection of the Ballast Water Record Book; and
- sampling the ship's ballast water, in accordance with IMO guidelines.

Importantly, in this context, Article 9 also stipulates that the time to analyze the collected samples of ballast water shall not be used as a basis to delay the operation or departure of the ship.

For two main reasons, the U.S. position has been that the G2 guidelines should focus on the means of getting samples of ballast water efficiently and in a manner that will best allow a characterization of the water being discharged. In particular, the U.S. has argued that the guidelines should primarily offer guidance on the design, construction, installation, and operation of standardized sample ports through which samples of water from the discharge line can be drawn.

The wide adoption of standard arrangements will greatly assist inspectors to collect samples of ballast water in a timely and efficient manner.

An opposing view has been that the G2 guidelines should describe in detail not only the means of collecting samples, but also the specific methods and procedures by which such samples are subsequently handled, analyzed, and interpreted.

The U.S. objection to this approach is that negotiating an agreement on the numerous technical details (many of which would require careful empirical validation) would take far too long and, in the end, hard differences between countries on policy aspects regarding the interpretation of analytical results would likely not be possible in a workable time frame.

A daunting list of eleven additional topics will also be up for discussion, time permitting. While the actual priority for discussion during the meeting will be decided during the opening plenary session, the additional issues fall in to two main groups.

First, additional supplementary guidance documents proposed by various members to help prepare for and to implement the Convention, including:

- arrangements for responding to emergency situations involving ballast water operations;
- long-term effects, maintenance and reliability of Ballast Water Management Systems;
- guidance on handling and storage of chemicals used to treat ballast water; and
- safety procedures for ships' crew regarding ballast water management systems that make use of Active Substances.

Second, further development and refinement of the guidelines for approval of ballast water management systems and related methodologies, including:

- a Procedure to approve other methods of ballast water management under regulation B-3.7 of the BWM Convention;
- further consideration of a Human Exposure Scenario that could be incorporated in the methodology for review of applications under the *Guidelines for Approval of Ballast Water Management Systems That Make Use of Active Substances* (G9);
- criteria to evaluate systems using the same Active Substances, to determine when it is appropriate to apply the Basic Approval granted to one applicant to another applicant;
- clarification of the relationship between the *Guidelines for Approval of Ballast Water Management Systems* (G8) and G9 guidelines to ensure coordinated application; and
- a revised draft of the G9 guidelines and formal methodology by which the GESAMP-Ballast Water Work Group

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(BWWG) evaluates applications for IMO approval of ballast water management systems that use Active Substances.

(*Note: GESAMP is the "Group of Experts on the Scientific Aspects of Marine Environmental Protection", an advisory body established in 1969 that advises the United Nations system on the scientific aspects of marine environmental protection. GESAMP was selected by the IMO to provide technical advice in evaluating applications for approval of ballast water management systems using Active Substances. See http://gesamp.net/page.php for further description of GESAMP.)*

The findings and recommendations of the Ballast Water Work Group at BLG, as accepted by the BLG Sub-committee, will be transmitted to the Marine Environment Protection Committee (MEPC) for consideration at its 57th meeting the week of March 31 – April 4, 2008.

Zebra mussel clusters attached to native shellfish. (Photo courtesy of Pennsylvania State University at Erie)

Another ballast water related issue that will be on the agenda for MEPC 57 will include consideration of applications for approval of ballast water management systems that make use of Active Substances. At this time there are 3 applications for Basic Approval (OceanSaver, Hitachi ClearBallast, and the GloEn-Patrol systems) and 3 applications for Final Approval (Techcross Electro-Clean, RWO CleanBallast, and the Degussa PeracleanOcean + Hamman SEDNA systems).

These applications have been reviewed by the GESAMP-BWWG in accordance with Regulation D-3.2 of the Convention and the G9 guidelines. The GESAMP-BWWG Report will contain recommendations to the MEPC on whether or not the applications should be approved.

International Review of MARPOL Annex V

By LT Heather St. Pierre, USCG

By invitation of the 60th UN General Assembly, the International Maritime Organization's (IMO) Marine Environment Protection Committee (MEPC) began a review of the regulations for the prevention of pollution by garbage from ships.

These regulations are located in Annex V to the *International Convention for the Prevention of Pollution from Ships, 1973, as modified by the Protocol of 1978 relating thereto* (MARPOL 73/78), but are more commonly known as MARPOL Annex V.

The purpose of this Annex is to provide guidance to mariners about which types of 'garbage' can and cannot be disposed into the marine environment and specifies the distance from shore if disposal is permitted.

These regulations apply to all vessels. Under Annex V, 'garbage' means victual, domestic, and operational waste (excluding fresh fish and parts thereof) generated during the normal operation of the ship, liable to be disposed of continuously or periodically, and excludes those substances defined or listed in other Annexes to MARPOL.

A correspondence group, established after MEPC 55, is currently reviewing these regulations on shipboard 'garbage.' To support the Correspondence Group for the review of MARPOL Annex V, the United States has formed an interagency working group, co-chaired by the USCG and NOAA, in order to provide input on the U.S. Government's position.

The current main topics for review include: managing cargo residues, bulk liquid wastes, garbage with harmful residues, dunnage and floating materials, composite materials, livestock wastes, and loss of fishing gear, as well as minimizing the generation of garbage.

The Correspondence Group reports for the review of MARPOL Annex V to MEPC 56 and MEPC 57 can be requested at http://www.uscg.mil/hq/g-m/mso/IMOMEPC.htm.

Vessels Operating Inside U.S. Waters Must Comply with Ballast Water Management Regulations

By Mr. Bivan R. Patnaik, USCG

Ballast water management (BWM) is not only required by transoceanic vessels or vessels operating outside the U.S. Exclusive Economic Zone. It is important to remember that there are BWM regulations for vessels that operate inside U.S. waters as well.

These regulations may be found in 33 CFR Part 151 Subpart D, Section 151.2035(a), as follows:

§ 151.2035 What are the required ballast water management practices for my vessel?

(a) Master, owners, operators, or persons-in-charge of all vessels equipped with ballast water tanks that operate in the waters of the U.S. must:

(1) Avoid the discharge or uptake of ballast water in areas within or that may directly affect marine sanctuaries, marine preserves, marine parks, or coral reefs.

(2) Minimize or avoid uptake of ballast water in the following areas and situations:

(i) Areas known to have infestations or populations of harmful organisms and pathogens (e.g., toxic algal blooms).

(ii) Areas near sewage outfalls.

(iii) Areas near dredging operations.

(iv) Areas where tidal flushing is known to be poor or times when a tidal stream is known to be more turbid.

(v) In darkness when bottom-dwelling organisms may rise up in the water column.

(vi) Where propellers may stir up the sediment.

(vii) Areas with pods of whales, convergence zones, and boundaries of major currents.

(3) Clean the ballast tanks regularly to remove sediments. Clean the tanks in mid-ocean or under controlled arrangements in port, or at dry dock. Dispose of your sediments in accordance with local, State, and Federal regulations.

(4) Discharge only the minimal amount of ballast water essential for vessel operations while in the waters of the United States.

(5) Rinse anchors and anchor chains when you retrieve the anchor to remove organisms and sediments at their place of origin.

(6) Remove fouling organisms from hull, piping, and tanks on a regular basis and dispose of any removed substances in accordance with local, State and Federal regulations.

(7) Maintain a ballast water management plan that has been developed specifically for the vessel that will allow those responsible for the plan's implementation to understand and follow the vessel's ballast water management strategy.

(8) Train the master, operator, person-in-charge, and crew, on the application of ballast water and sediment management and treatment procedures.

For further information on all ballast water management regulations, please refer to 33 CFR Part 151, Subparts C and D, which may be found at www.regulations.gov.

Ship Recycling Convention Moves Forward

By LTJG David Major, USCG

On January 21, 2008, the third session of the Intercessional Meeting of the Working Group on Ship Recycling took place in Nantes, France. The international working group made significant progress on the draft *International Convention for the Safe and Environmentally Sound Recycling of Ships*, informally known as the Ship Recycling Convention.

The group achieved consensus on a broad variety of issues and anticipates the submission of an extremely comprehensive document to the diplomatic conference projected for 2009.

Bay Bridge Enterprises, a ship recycling facility in Norfolk, VA. (Photo courtesy of U.S. Coast Guard)

With the goal of crafting a Convention to which the United States could become a party, the U.S. delegation worked to ensure the development of a robust mechanism that would effectively protect worker safety and environmental integrity.

The IMO Marine Environment Protection Committee (MEPC) will revisit the Ship Recycling Convention at its meeting in London on March 31 - April 4, 2008.

Shipboard Technology Evaluation Program STEPs Up

By LCDR Brian Moore, USCG

The "good news" is that the first applications under STEP to install and operate innovative ballast water treatment technologies as prototypes are being processed, and that the environmental assessments are being prepared for public comment.

Ship's operators will be using their experimental systems to handle all of their ballast water management. The vendors of these prototypes are striving to find practicable methods of treating ships' ballast water to meet requirements of future U.S. and international regulations.

The "bad news" is that the application review process took longer than expected and required patience on the part of operators, vendors, and the public.

Therefore, the Coast Guard's Environmental Standards Division has begun a project review on the STEP application and approval process, in order to better use its limited resources to address the issue of novel technology development.

Operators are encouraged to partner with vendors and submit STEP applications. The Coast Guard is working on a Ballast Water Discharge Standard rulemaking, which will apply to all vessels operating in the waters of the United States. However, vessels enrolled as STEP experiments will be deemed compliant with existing and future regulations as they are developed.

The importance of STEP was recently highlighted by a California State Lands Commission report, which reviewed the efficacy of available ballast water treatment technologies.

At the time of the May 2007 assessment no system could meet the specifications of the State's discharge rule. This finding has prompted the state to re-evaluate the implementation date for its ballast water management regulations.

Readers may refer to the Environmental Standards Division's Web page for the latest information on active STEP applications and technologies being tested. The goal is protection of United States waters against invasive species transported in ships' ballast water through effective ballast water management.

Marine Environment Protection Committee to hold 57th Session

By LT Heather St. Pierre, USCG

The 57th Session of the International Maritime Organization's (IMO) Marine Environment Protection Committee (MEPC 57) will be held from March 31 – April 4, 2008 at the Royal Horticultural Halls and Conference Centre in London, UK.

Several items of interest will be discussed at this session, including harmful aquatic organisms in ballast water, recycling of ships, prevention of air pollution from ships, interpretations and amendments of MARPOL and related instruments, and identification and protection of Special Areas and Particularly Sensitive Sea Areas.

Documents for MEPC 57 and previous sessions can be requested on-line at http://www.uscg.mil/hq/g-m/mso/IMOMEPC.htm.

Please note that not all meeting documents for MEPC 57 are available, so you may have to periodically check the website for updates.

In preparation for MEPC 57, the U.S. Coast Guard will host the Shipping Coordinating Committee's public meeting. The time and date of this meeting will be announced in the Federal Register.

Environmental Standards Division

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Calendar of Events

- **February 20 - 22, 2008**
  Effectiveness of International and National Measures to Prevent and Reduce Marine Debris and Its Impacts
  Irvine, CA
  www8.nationalacademies.org/cp/projectview.aspx?key=48862
  POC: Jodi Bostrom, 202-334-2628
  jbostrom@nas.edu

- **March 13 - 14, 2008**
  Lower Great Lakes Ballast Water
  Erie, PA
  www.seagrant.psu.edu/news/news.htm
  POC: Marti Martz, 814-217-9015,
  mam60@psu.edu

- **March 31 - April 4, 2008**
  Marine Environment Protection Committee (MEPC 57)
  London, UK
  www.imo.org

- **April 15 - 16, 2008**
  Mid-Atlantic Panel on Aquatic Invasive Species
  Charles City, VA
  www.midatlanticpanel.org
  POC: Julie Slacum, 410-573-4517,
  julie_thompson@fws.gov

- **Spring (TBD) 2008**
  Aquatic Nuisance Species Task Force
  Southeastern U.S. (TBD)
  www.anstaskforce.gov
  POC: Scott Newsham, 703-358-1796,
  scott_newsham@fws.gov